

GUN LAYING AND POSITIONING SYSTEM PRACTICAL EXERCISE

Problem 1. You are a Gunnery Sergeant of an M198 howitzer (4 gun) battery and have been ordered to prepare the position and orient on AOF 0850. You have been provided SCP data (just location) at the next position area. Set up, orient and prepare to lay the battery.

a. List the following data for the guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4. | _____ | _____ | _____ | _____ |

b. Establish direction control in the platoon area, select or establish an EOL and prepare the OS survey tag.

| | |
|--------|---------------------|
| UNIT: | AZ of OL: |
| OSTRA: | DISTANCE TO EOL: |
| E: | |
| N: | DESCRIPTION OF EOL: |
| A | |

Problem 2. You are a gunnery sergeant of an M109A5 platoon. You have been instructed to recon and prepare a position for your platoon to occupy. A map and ground recon along with a review of the battalions survey control list of location data points out that there is no location data available at the next position. The AOF of 6350 is given to you by the platoon leader. Set up, orient and prepare to lay the platoon.

a. List the following information for guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4. | _____ | _____ | _____ | _____ |

b. Establish direction control in the platoon area, select or establish an EOL and prepare the OS survey tag.

| | |
|--------|---------------------|
| UNIT: | AZ of OL: |
| OSTRA: | DISTANCE TO EOL: |
| E: | |
| N: | DESCRIPTION OF EOL: |
| A | |

Problem 3. You are gunnery sergeant of an M119A1 howitzer battery. Your battery has been instructed to occupy a position and orient on an AOF of 0430. The position you are going to occupy has established OSTR data (OS, OL & EOL).

| | |
|--------------|---------------------|
| UNIT: | AZ of OL: |
| OSTRA: E: | DISTANCE TO EOL: |
| N: | DESCRIPTION OF EOL: |
| A | |

a. List the following information for guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4 | _____ | _____ | _____ | _____ |
| 5 | _____ | _____ | _____ | _____ |
| 6 | _____ | _____ | _____ | _____ |

b. While waiting for the battery to arrive you observe two prominent reference points from your position which you decide to store as reference points for future positioning requirements. The points are _____ & _____ and store them as reference points 1&2.

| RP # | Azimuth | Range | VA | Grid (UTM/UPS) |
|------|---------|-------|-------|----------------|
| #1 | _____ | _____ | _____ | _____ |
| #2 | _____ | _____ | _____ | _____ |

Problem 4. You are gunnery sergeant of an M198 howitzer platoon. Set up, orient and prepare to lay the platoon on AOF 1250. During your movement briefing the platoon leader provides you with a grid coordinate to a visible known point that you can observe from your next position area. The point is the _____ and the location data is _____.

a. List the following information for the guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4 | _____ | _____ | _____ | _____ |

b. What is your OS position? (easting, northing & altitude)

E _____ N _____ ALT _____

Problem 5. You are a gunnery sergeant of an M109A5 platoon. You must lay on AOF 1750. Reference Point 1 is visible and within 2,000 meters of your location. Set up, orient and prepare to lay the platoon.

a. List the following information for the guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4 | _____ | _____ | _____ | _____ |

b. Establish direction control in the platoon area, select or establish an EOL and prepare the OS survey tag.

| | |
|--------|---------------------|
| UNIT: | AZ of OL: |
| OSTRA: | DISTANCE TO EOL: |
| E: | |
| N: | DESCRIPTION OF EOL: |
| A | |

Problem 6. You are a gunnery sergeant of an M198 howitzer battery and have been ordered to recon and orient the battery on AOF 1720. After a map recon you realize that there is no survey control data in the position or visible from the position. Set up, orient and prepare to lay the platoon.

a. List the following information for the guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4 | _____ | _____ | _____ | _____ |
| 5 | _____ | _____ | _____ | _____ |
| 6 | _____ | _____ | _____ | _____ |

b. Establish direction control in the platoon area, select or establish an EOL and prepare the OS survey tag.

| | |
|--------|---------------------|
| UNIT: | AZ of OL: |
| OSTRA: | DISTANCE TO EOL: |
| E: | |
| N: | DESCRIPTION OF EOL: |
| A | |

Problem 7. You are gunnery sergeant of an M119A1 howitzer battery. During your preparation of the position you discover that the survey control is not reliable, your PLGR has waypoints stored on it from data provided by the battalion survey section, and you can identify a visible known point on the ground that you have stored as Waypoint #XXX_____. Your AOF 0950.

a. List the following information for the guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4 | _____ | _____ | _____ | _____ |
| 5 | _____ | _____ | _____ | _____ |
| 6 | _____ | _____ | _____ | _____ |

b. Establish direction control in the platoon area, select or establish an EOL and prepare the OS survey tag.

| | |
|--------|---------------------|
| UNIT: | AZ of OL: |
| OSTRA: | DISTANCE TO EOL: |
| E: | |
| N: | DESCRIPTION OF EOL: |
| A | |

Problem 8. You are gunnery sergeant of an M198 howitzer battery. You have been instructed to set up, orient and prepare to lay the platoon on an AOF of 6250. The position you are about to occupy has no survey data available.

a. List the following information for the guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4 | _____ | _____ | _____ | _____ |

b. Establish direction control in the platoon area, select or establish an EOL and prepare the OS survey tag.

| | |
|--------|---------------------|
| UNIT: | AZ of OL: |
| OSTRA: | DISTANCE TO EOL: |
| E: | |
| N: | DESCRIPTION OF EOL: |
| A | |

Problem 9. You are a gunnery sergeant of an M109A5 platoon. Your AOF is 0300. A map recon has identified that Reference Point #2 is visible and within 2,500 meters of your location. Set up, orient and prepare to lay the platoon.

a. List the following information for the guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4 | _____ | _____ | _____ | _____ |

b. Establish direction control in the platoon area, select or establish an EOL and prepare the OS survey tag.

| | |
|--------|---------------------|
| UNIT: | AZ of OL: |
| OSTRA: | DISTANCE TO EOL: |
| E: | |
| N: | DESCRIPTION OF EOL: |
| A | |

Problem 10. You are a gunnery sergeant of an M119 howitzer battery and have been ordered to lay on AOF 1600. You have been provided with an SCP for location control in your next position and the grid is _____.

Set up, orient and prepare to lay the platoon.

a. List the following information for the guns:

| GUN # | DEFLECTION | DISTANCE | VA | GRID COORDINATE (E,N & A) |
|-------|------------|----------|-------|---------------------------|
| 1 | _____ | _____ | _____ | _____ |
| 2 | _____ | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ | _____ |
| 4 | _____ | _____ | _____ | _____ |
| 5 | _____ | _____ | _____ | _____ |
| 6 | _____ | _____ | _____ | _____ |

b. Establish direction control in the platoon area, select or establish an EOL and prepare the OS survey tag.

| | |
|--------|---------------------|
| UNIT: | AZ of OL: |
| OSTRA: | DISTANCE TO EOL: |
| E: | |
| N: | DESCRIPTION OF EOL: |
| A | |